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United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

Veterinary
Services

Biosecurity Measures

National Swine Survey

Today's swine producers are keenly aware of the devastation of infectious diseases -- in loss of pigs and, in turn, loss of dollars. For this reason, many swine producers are relying on biosecurity practices to prevent the introduction of infectious diseases.

According to a recent study of swine health and productivity conducted by the National Animal Health Monitoring System, during 1990 nearly two-thirds of the U.S.'s swine producers quarantined newly arriving boars on their farms. On the other hand, only one-third employed the same practice for newly arriving breeding females. And only 2 percent took the same precaution for feeder pigs.

While producers quarantined breeding males for almost 29 days, the breeding females were quarantined for about 31 days. Those who quarantined feeder pigs separated them from the others for an average of just more than 34 days.

"Even though breeding suppliers try to keep disease at a minimum, producers should quarantine new animals," Dr. Max Rodibaugh of Frankfort, Indiana, advised. "The key reason for this procedure is to protect the herd from disease that may be incubating in the animal unnoticed."

"Swine producers are keenly aware of the devastation an outbreak causes. Performance can be easily lost."

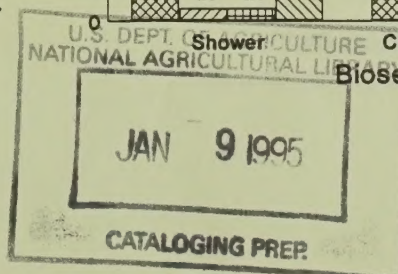
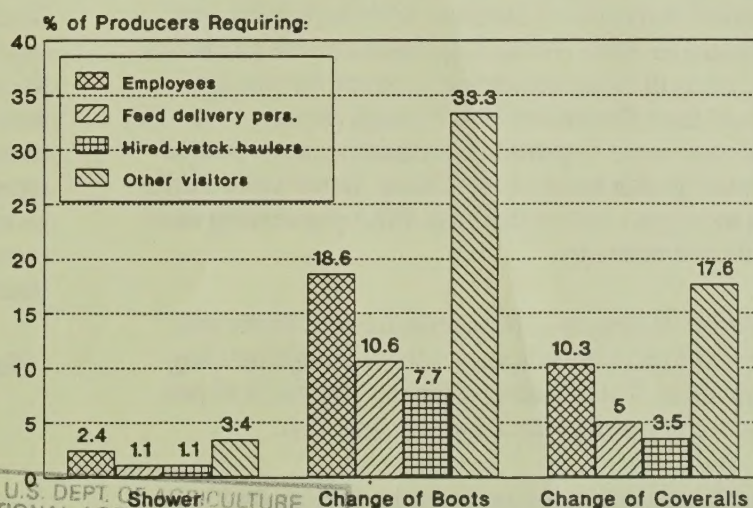
The proportion of producers health testing new arrivals followed the pattern of quarantining. Almost twice as many producers health tested boars as those who health tested females (42.1 percent versus 22.3 percent). Plus, less than 1 percent health tested feeder pigs.

While many swine producers were particular about incoming pigs, they weren't quite so fussy about incoming people. Of those concerned with the human element, requiring people to change their boots before entering a facility proved to be the most common disease-preventing practice (Figure 1).

The people asked most often to change their boots before entering the swine operation were visitors. Yes, one-third of all operations requested a change of boots for visitors. Only

Figure 1.

Biosecurity Measures for Personnel



18.6 percent requested the same of employees, 10.6 percent of feed delivery personnel, and 7.7 percent of hired livestock haulers.

About half as many operations required people to change coveralls before entrance. But those demanding the coverall change again targeted visitors -- 17.6 percent. Only one in 20 required it of the feed delivery personnel. Less than one in 29 required the hired livestock haulers to do the same.

"I would sure want to take some sort of precaution when it comes to visitors," Rodibaugh said. "You do not know where people have been. Viruses and bacteria can be transmitted by various means, including people, so the host should provide visitors with boots and coveralls to wear into the unit."

While less than one in 20 operations required that people shower on entry to swine

operations, visitors again led the way -- this time with only 3.4 percent. The next group of people was employees at 2.4 percent.

Footbaths was a more standard procedure than showers. Again visitors were required to employ the practice more than other individuals. Almost 15 percent of the farms required visitors entering the farrowing units to partake of footbaths. And the same for the breeding/replacement units or the general swine operation on approximately one in 11 farms.

Employees got in on the action of footbaths as well. Nearly 10 percent of the operations required footbaths of employees before entering the farrowing units(s). Requiring footbaths prior to entering breeding or replacement units and the general swine operation was not as prominent, with only 5 percent of the producers demanding the practice.

The National Swine Survey was a cooperative effort of State agricultural departments; universities; and the following USDA agencies: Extension Service (ES), National Agricultural Statistics Service (NASS), and Animal and Plant Health Inspection Service (APHIS). The study of swine health and productivity was conducted from December 1989 through January 1991. The objectives were to provide information on the production and health levels of the United States' swine herd, and to suggest factors that may affect preweaning morbidity and mortality.

A statistical sample of producers from 18 States was selected to provide inferences about the nation's hog population. The resulting estimates represent 95 percent of the United States' swine population.

The National Agricultural Statistics Service (NASS) selected the sample and collected retrospective data on

swine health and management practices from 1,661 farms.

Seven hundred and twelve (712) producers agreed to continue providing data to State and federal Veterinary Medical Officers (VMO's). Each farm was visited a total of four times over a 90- to 120-day period. Data collection instruments such as diary cards were implemented to collect prospective data on the farrowing to weaning stage of swine production. The producers recorded observations of clinical signs associated with illness and death in sows, gilts, and preweaning piglets.

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